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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/040,473   | 01/09/2002  | Kia Silverbrook      | WSM09US             | 2548             |
| 24011  | 7590        | 10/15/2003           | EXAMINER            |                  |
| SILVERBROOK RESEARCH PTY LTD<br>393 DARLING STREET<br>BALMAIN, 2041<br>AUSTRALIA |             |                      | BEREZNY, NEMA O     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2813                |                  |

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/040,473

Applicant(s)

SILVERBROOK, KIA

Examiner

Nema O Berezny

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

Cancellation of claims 1-7 in Amendment A, filed 6-16-03 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swirhun et al. (6,001,664) in view of Cole (2002/0117623). Swirhun discloses a light emitting semiconductor package including: a) a semiconductor chip (Figs.7a-7b el.130) having a top surface and a bottom surface and having at least one light emitting device (el.89,92) formed in the chip which emits electromagnetic radiation, said device residing on or in the top surface (Fig.7b); b) a first hollow cap (el.136) having a central portion and first perimeter walls extending from the perimeter edge of the central portion with the free edges of the first perimeter walls bonded to the top surface to provide a first cavity (Fig.7b); and which, in plan view, overlays part or all of at least one light emitting device (Fig.7b), said central portion including at least one region which is at least substantially transparent or translucent to electromagnetic radiation (col.10 lines 39-44). Swirhun also discloses at least one region that refracts said electromagnetic

Art Unit: 2813

radiation emitted by said at least one device (inherent property of transparent or translucent material); wherein the cap further includes at least one attachment means for attaching an electromagnetic radiation transmitting cable or fiber (el.124) to the cap, whereby at least some electromagnetic radiation emitted from the at least one device passes through said at least one region into the cable or fiber (Fig.7c; col.10 lines 50-67); wherein the at least one attachment means includes a second perimeter wall (el.150) extending from the periphery of the central portion away from the first perimeter wall; wherein the at least one attachment means includes at least one recess in the central portion (Fig.7b); and wherein more than one region of the central portion is provided, each region of the central portion associated with at least one light emitting device (el.89,92). However, Swirhun does not disclose a cap bonded to the chip at the wafer stage prior to separation into individual packages. Cole discloses a cap bonded to an optoelectronic chip with a cap at the wafer stage prior to separation into individual packages (Figs.3,4). Therefore, it would have been obvious to a person skilled in the art at the time of the invention to use the caps bonded to a wafer of Cole with the package of Swirhun in order to fabricate several packages efficiently in just one step instead of several steps for each individual package.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2813

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swirhun et al. as applied to claims 8-12 above, and further in view of Bloom (5,805,757). Swirhun does not disclose a second cap bonded to the bottom surface of the chip. However, Bloom discloses a second cap bonded to the bottom surface of the chip, said second cap, in plan view, overlaying part or all of the at least one device (Fig.9A; col.9 lines 12-17). Therefore, it would have been obvious to a person skilled in the art at the time of the invention to use the second cap of Bloom with the light emitting semiconductor package of Swirhun in order to provide support for the optical device (col.9 lines 21-24).

### ***Response to Arguments***

Applicant's arguments with respect to claims 8-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nema O Berezny whose telephone number is (703) 305-3445. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr. can be reached on (703) 308-4940. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

NB

  
CARL WHITEHEAD, JR.  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800